

PATENT CLAIMS

1. A lifting body (1) for an airship comprising a gas-tight skin (2),

characterized in that

- at least one node element (3) is provided in each of the regions of nose (11) and rear (12) of the lifting body (1),
- at least one compression member (4) is provided and connected to the skin (2) and its two ends are each anchored in one of the node elements (3),
- at least two tensile bands (5) are provided per compression member (4), which run in opposite spiral directions around the skin (2) from one end of a compression member (4) to the other end of the same compression member (4) and are anchored in the same node elements (3) as the at least one compression member (4),
- the at least one compression member (4) and the node elements (3) have means for attaching the rigid components of an airship.

2. The lifting body (1) for an airship according to claim 1, characterized in that multiple compression members (4) are provided.

3. The lifting body (1) for an airship according to claim 1 or 2, characterized in that the at least one compression member (4) has bending elasticity.

4. The lifting body (1) for an airship according to claim 1, 2, or 3, characterized in that the at least one compression member (4) runs along a surface line of the hollow body (2).
5. The lifting body (1) for an airship according to one of claims 1 through 4, characterized in that the at least one compression member (4) is made of fiberglass-reinforced plastic.
6. The lifting body (1) for an airship according to one of claims 1 through 4, characterized in that the at least one compression member (4) is made of carbon-fiber-reinforced plastic.
7. The lifting body (1) for an airship according to claim 2, characterized in that the compression members (4) are positioned rotationally symmetric.
8. The lifting body (1) for an airship according to one of claims 1 through 4, characterized in that the at least one compression member (4) is attached to the skin (2) and permanently bonded thereto.
9. The lifting body (1) for an airship according to one of claims 1 through 4, characterized in that the at least one compression member (4) is integrated into the skin (2).
10. The lifting body (1) for an airship according to claim 1, characterized in that the node element (3) is shell-shaped and is laid over the nose (11) or the rear (12) of the skin (2).
11. The lifting body (1) for an airship according to claim 1, characterized in that the node element (3) is

annular and is laid around the nose (11) or the rear (12) of the skin (2).

12. The lifting body (1) for an airship according to claim 10 or 11, characterized in that the ends of the compression members (4) at the nose (11) and at the rear (12) are each permanently bonded together to the node element (3).
13. The lifting body (1) for an airship according to one of claims 10, 11, or 12, characterized in that the node elements (3) are designed in such a way that they absorb the tensile forces of the tensile bands (5) and conduct them without torque into the compression members (4).
14. The lifting body (1) for an airship according to claim 1, characterized in that the tensile bands (5) are manufactured from material having low extensibility and press the at least one compression member (4) against the skin (2) under tensile stress.
15. The lifting body (1) for an airship according to claim 14, characterized in that the tensile bands (5) are manufactured from textile materials having low extensibility.
16. The lifting body (1) for an airship according to claim 15, characterized in that the tensile bands (5) are manufactured from aramid fibers.
17. The lifting body (1) for an airship according to Claim 14, characterized in that the tensile bands (5) are each manufactured from at least one steel cable.
18. The lifting body (1) for an airship according to claim 12, characterized in that the tensile bands (5) run

between the node elements (3) along geodetic lines of the skin (2).

19. The lifting body (1) for an airship according to claim 13, characterized in that deflection elements (15) are provided at intersections of tensile bands (5), so that the geodetic lines of the tensile bands intersect in the intersection, but the tensile bands themselves pass from one geodetic line into the other.
20. A use of the lifting body (1) as a lifting body for an airship.